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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/034, 187	03/03/98	MATYJASZEWSKI	K 7057-004-0XD

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ART UNIT	PAPER NUMBER
1713	<i>24</i>

**DATE MAILED:** 03/27/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No. <b>09/034,187</b>	Applicant(s) <b>Matyjaszewski et al.</b>
	Examiner <b>R. Rabago</b>	Group Art Unit <b>1713</b>

Responsive to communication(s) filed on Jan 2, 2001

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-14, 21-36, 38, 39, and 43-67 is/are pending in the application.

Of the above, claim(s) 1-14, 46-54, 60, and 61 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 21-28, 31, 32, 34-36, 38, 39, 43, 55, and 62-67 is/are rejected.

Claim(s) 29, 30, 33, 44, 45, and 56-59 is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**DETAILED ACTION**

1. Objections to the specification are withdrawn in view of amendment. The examiner's objections to the drawings are withdrawn; however, numerous drawings still appear to be informal, and they will be further evaluated by the draftsperson at such time as this application is in condition for allowance. The prior rejections under 35 USC 112 are withdrawn in view of amendment, except as noted below. The double patenting rejection is withdrawn in view of terminal disclaimer.

*Claim Objections*

2. Claim 45 is objected to because this amended claim contains bracketing both for the indication of material to be deleted from the claim and for material to be retained in the chemical structure. The claim history indicates the intended meaning sufficient to permit examination; however, the inconsistent bracketing used in this claim will likely result in printing errors in any patent which may issue from this application, and therefore this application will not be passed to issue until a clean version of the claim is submitted. Furthermore, in line 20 "Where" should be changed to "where".

3. Claims 35, 36 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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applicant regards as the invention. As stated in the prior Office action, neither the claims nor the specification provide proper definition for ascertaining the scope of the following limitations:

- (i) "controlled" in claim 43, relating to the molecular weight distribution and polymer composition;
- (ii) "a composition that changes in a predictable manner" in claims 35 and 36;
- (iii) "predetermined" in claim 43;

Applicant's arguments filed 8/17/2000 have been fully considered but they are not persuasive. Aside from arguing that no ambiguity exists, applicants have not set forth any clarification of the rejected claims. Repeating from the earlier rejection, the presence of exemplary and perhaps preferred values or ranges for some of these parameter in the specification is noted; however, such descriptions from the specification are not read into the claims unless they are specific definitions which clearly limit the claims.

4. Claims 26, 38, 39, 64-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) The limitations in claims 64-66 reciting "with the proviso that R<sup>11</sup>, R<sup>12</sup> and R<sup>13</sup> have ... polymer chains attached thereto" is not understood because the formulas as written do not permit these groups to have the polymeric portions attached thereto. These three groups are

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bonded to a carbon atom which exists between these groups and any polymer chain portions, and therefore the intention of these limitations cannot be determined.

(b) The limitation "copolymers of this topology comprising four or more comonomers" in claim 64, line 54, is not consistent with the recitation at lines 49-51 that only three monomers are present. This same problem exists in the last line of claim 65.

(c) In claim 64 at lines 67-68, and in claim 67 at lines 2-3, applicants have used the feature "... " in the descriptions of the polymer structures and subscript values, apparently in an attempt to indicate serially intervening members. However, it is not understood which intervening members are intended because there are no letters between those indicated as having intervening members. In each case, no alphabetic letters exist between f and g, and therefore it cannot be determined whether or not the claimed scope includes structures with intervening blocks placed in the portion indicated by ....

(d) In the final clause of each of claims 64 and 67, the limitation  $a+b=c+d=100$  is not understood because the meaning of 100 is not understood. It cannot be determined whether this value corresponds to a percentage of some sort, the precise number of monomer units in each block, or some other parameter.

(e) In claim 26, the meaning of "substantially similar" cannot be determined as to how similar the monomers are required to be.

(f) In claim 38, the scope of "or a group derived therefrom" cannot be determined.

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(g) The final clause of claim 39 is not understood because the structures include no square brackets.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 21-23, 28, 31, 34, 55, 62 and 63 are rejected under 35 U.S.C. 102(e) as being anticipated by Veregin et al. (US 5,610,250).

Examples II, III, IV and VII are deemed to anticipate these claims.

7. Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Odian 1991. The claimed polymer would result from a bimolecular termination step involving two polymer radicals during any conventional free radical polymerization process (Odian pg. 206).

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***Claim Rejections - 35 USC § 103***

8. Claims 24, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veregin et al. (US 5,610,250) for the reasons set forth in item 10 of the Office action mailed 2/17/2000.

Applicant's arguments filed 8/17/2000 have been fully considered but they are not persuasive. Applicants rely on a 1997 article in an attempt to discredit the disclosure of the patent on grounds of lack of enablement for the specifically suggested method cited in the prior Office action. However, such argument is unconvincing for the following reasons. First, applicants' assertion that the article authors have stated that "the disclosure of Veregin cited by the Examiner is not enabling for the production of block copolymers" is incorrect. Nowhere in the cited article is the Veregin patent mentioned, nor does the cited subject matter of the article correspond with the passage in the patent cited against the instant claims. Furthermore, applicants' implication that the Veregin patent is not enabled for acrylate polymers is also incorrect. Applicants are directed to Example 1, wherein the supposedly unattainable acrylate polymer is made. The polymer made in Example 1 is analogous to that suggested as the initial block in the two-block polymer described at col. 14 as previously cited, and therefore applicants' argument provides neither evidence nor reasonable basis to believe that the method suggested in Veregin would fail to achieve the claimed polymer.

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***Allowable Subject Matter***

9. Claims 29, 30, 33, 44 and 56-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rabago whose telephone number is (703) 308-4347. The examiner can normally be reached from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are: (703) 305-5408 (official), (703) 305-3599 (official after final) and (703) 306-3429 (unofficial).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

RRabago  
March 26, 2001

*David W.*

DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
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